

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of claims:**

Claims 1-10 (cancelled)

Claim 11 (new): A test device comprising:

a detector volume housing an indicator; and

a gas-collection-volume connecting the detector volume to a sterilization chamber, wherein the gas-collection volume includes multiple stages such that a cross sectional area and a volume of each stage decrease between neighboring stages towards a direction of the detector volume.

Claim 12 (new): The test device as recited in claim 11, wherein the cross sectional area between the neighboring stages decreases towards the direction of the detector volume by at least 50%.

Claim 13 (new): The test device as recited in claim 12, wherein the cross sectional area between the neighboring stages decreases towards the direction of the detector volume by more than 75%.

Claim 14 (new): The test device as recited in claim 11, wherein the cross sectional area of the stage of the gas-collection volume directly adjacent to the detector volume is approximately 1 to 200 mm<sup>2</sup>.

Claim 15 (new): The test device as recited in claim 11, wherein the stage of the gas-collection volume directly adjacent to the detector volume has a channel length of at least 10 cm.

Claim 16 (new): The test device as recited in claim 15, wherein the channel length is approximately 30 to 100 cm.

Claim 17 (new): The test device as recited in claim 11, wherein a first stage of the gas-collection-volume is disposed within a second stage of the gas-collection-volume.

Claim 18 (new): The test device as recited in claim 17, wherein the second stage is formed by an outside case enclosing the first stage.

Claim 19 (new): The test device as recited in claim 17, wherein the first stage is built around an outside case forming the second stage.

Claim 20 (new): The test device as recited in claim 11, wherein at least one stage is filled with porous material.

Claim 21 (new): The test device as recited in claim 11, wherein the detector volume is approximately 100 $\mu$ l to 500  $\mu$ l.

Claim 22 (new): The test device as recited in claim 11, wherein the indicator includes one of a chemical and a biological indicator.

Claim 23 (new): The test device as recited in claim 11, wherein the test device is configured to test the penetration characteristics of a sterilization agent.